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# NAVAL POSTGRADUATE SCHOOL

Monterey, California



DEPARTMENT OF OPERATIONS RESEARCH

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Gilbert The Howard

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Associate Professor

Department of Operations Research

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This report contains a listing sorted alphabetically by author of all unclassified NPS technical reports written in the period 1969 - 1979 by faculty currently in the Operations Research Department.		

#### Introduction

This report contains a listing sorted alphabetically by author of all unclassified NPS technical reports written in the period 1969 - 1979 by faculty currently in the Operations Research Department.

The Department of Operations Research was merged in 1971 with the Department of Business and Economics to become the Department of Operations Research and Administrative Science. In 1976 these were split into two departments.

The source of the information contained in this report is the FACPUB system maintained by the NPS library. Corrections or omissions should be directed to the cataloging division of the library.

- Andrus, A F
  A preliminary study of vulnerability of U. S. naval
  forces in the Gulf of Tonkin using a manual war game
  Naval Postgraduate School, (NPS-55As72051A), 1972.
  39 p.
- Andrus, A F
  A GPSS model: Submarine detection and trail
  Naval Postgraduate School, (NPS-55As75061), 1975. 28
  P.
- Andrus, A F; Gaver, D P
  The spare parts allocation problem with imperfect information
  Naval Postgraduate School, (NPS-55As72041A), 1972.
  60 p.
- Arima, J K; Neil, D E
  Skill deterioration and its management
  Naval Postgraduate School, (NPS-55787), 1978. 70 p.
- Barr, D R
  An analysis of adjustment procedures for grenade launchers
  Naval Postgraduate School, (NPS-55Bn73041A), 1973.
  16 p.
- Barr, D R
  Two sequestial CEP tests
  Naval Postgraduate School, (NPS-55Bn74061), 1974. 15
  p.
- Barr, D R
  Statistical aspects of the AN/IPO-27 PSVT design
  Naval Postgraduate School, (NPS-55-77-13), 1977. 27
  p.
- Barr, D R
  Possible approaches to determining lateral and range effects of bomb stations, based on observed impact points
  Sponsored by the Naval Electronics Systems Command.
  Naval Postgraduate School, (NPS-557810), 1978. 15 p.
- Barr, D R: Burnett, T D
  A sequential median test with applications to CEP
  testing
  Naval Postgraduate School, (NPS-55Bn75071), 1975. 61
  p.

- Barr, D R; Jayachandran, T; Larson, H J
  Some statistical procedures for the joint oil analysis program
  Sponsored by the Technical Support Center, Naval Air Rework Facility, Pensacola, Fla. Naval Postgraduate School, (NPS-5578008), 1978. 72 p.
- Barr, D R; Jordan, M F
  A power distribution model for weapon accuracy
  Naval Postgraduate School, (NPS-55Bn74011), 1974. 31
  p.
- Barr, D R; Poock, G K; Richards, R
  Experimental designs and analyses for initial ACCAT test
  bed experimental demonstrations
  Naval Postgraduate School, (NPS-557721), 1977. 77 p.
- Barr, D R; Poock, G K; Richards, F R; Miller, H G
  Experimentation, research, and operational concepts for
  the Naval Postgraduate School remote site module
  Naval Ocean Systems Center, San Diego, Calif., 1978.
  28 p.
- Barr, D R; Poock, G K; Richards, F R
  Experimentation manual. Part 1: Experimentation
  methodology
  Naval Postgraduate School, (NPS55-78-032), Nov.,
  1978. 47 p.
- Barr, D R; Richards, F R
  Utility induced subjective probability
  Naval Postgraduate School, (NPS-55Bn75011), 1975. 32
  p.
- Barr, D R; Richards, F R
  Utility assessment methodology, preliminary development
  phase report
  Systems Exploration, Inc., (Technical Rep.), Dec.,
  1978.
- Barr, D R; Richards, F R
  Mk 82 bomb ejection sensitivity test report
  Sponsored by Naval Electronic Systems Command. Naval
  Postgraduate School, (NPS55-79-02), Feb., 1979. 20
  p.
- Barr, D R: Thomas, M U
  Statistical aspects of lumpability hypothesis for Markov chains
  Naval Postgraduate School, (NPS-55BnTo73121A), 1973.
  12 p.

- Barr, D R; Zehna, P W
  Tables of common probability distributions
  Naval Postgraduate School, (NPS-55ZeBn0091A), 1970.
  31 p.
- Bradley, G H; Brown, G G; Graves, G W
  Large scale network albrithms theory and
  implementation
  Naval Postgraduate School, (NPS-55Bz75101), 1975.
- Bradley, G H; Hillier, F S
  A constructive theory and applications for the solution of mixed integer systems of linear equations Oper. Res. Department, Stanford Univ. (TR11), 1973. 25 p.
- Bradley, G H: Howard, G I: Schneidewind, N F: Green, T F: Montgomery, G
  System test methodology, Volume II
  Naval Postgraduate School, (NPS-55Ss75072B), 1975.
- Bradley, G H; Howard, G I; Schneidewind, N F; Green, T F; Montgomery, G
  System test methodology, Volume I
  Naval Postgraduate School, (NPS-55Ss75072A), 1975.
- Bradley, G H; Schneidewind, N F; Howard, G T; Green, T F
  Structure and error detection in computer software
  Naval Postgraduate School, (NPS-55Ss75021), 1975. 20
  p.
- Bradley, G H; Shubik, M A note on the shape of the Pareto optimal surface Yale Univ., (Cowles Foundation Discussion Paper No. 350), 1973. 13 p.
- Brown, G G: Bradley, G: Graves, G
  Design and implementation of large scale primal
  transshipment algorithms
  Naval Postgraduate School, (NPS-55BzBw76091), UCLA
  WMSI Rep. 260, Note: presented to 9th Int.
  Mathematical Programming Symp., Budapest, Aug., 1976.
- Brown, G G; Geoffrion, A; Bradley, G H Seasonal production planning with limited shared tooling at the key operation UCLA, (WMSI Rep. 299), Oct., 1979. 35 p.

- Brown, G G; Shubert, B
  On random binary trees
  Naval Postgraduate School, (NPS-55Bw76061), 1976. 45
  p.
- Brown, G G: Taylor, J G
  A table of Lanchester-Clifford-Schlafi functions
  Naval Postgraduate School, (NPS-557739), 1977. 72 p.
- Brown, G G: Taylor, J G
  The Liouville-Green approximation to the solution of variable-coefficient Lanchester-type equations of modern warfare
  Naval Postgraduate School, (NPS-557744), 1977. 21 p.
- Brown, G G; Taylor, J G A short table of Lanchester-Clifford-Schlafi functions Naval Postgraduate School, (NPS-557742), 1977. 58 p.
- Butterworth, R W
  Bounds on the availability function
  Naval Postgraduate School, (NPS-55Bd71061A), 1971.
  20 p.
- Butterworth, R W
  A set theoretic treatment of coherent systems
  Naval Postgraduate School, (NPS-55Bd71062A), 1971.
  21 p.
- A simple policy planning model for determining sea and shore tour lengths
  Navy Personnel Res. and Development Center, San Diego, Calif., (TR 74-2), 1973. 11 p.
- Butterworth, R W
  On congestion in outpatient walk-in clinics
  Naval Postgraduate School, (NPS-55Bd75061), 1975. 47
  p.
- Butterworth, R W
  Minifast An interactive model of the Navy's enlisted
  personnel system
  Naval Postgraduate School, (NPS-55Bd76081), 1976. 34
  p.
- Butterworth, R W: Marshall, K T
  A survey of renewal theory with emphasis on approximations
  Naval Postgraduate School, (NPS-55Bd74051), 1974. 59
  p.

### DEPARTMENT OF OPERATIONS RESEARCH TECHNICAL REPORTS (cont d)

- Butterworth, R W: Milch, P R
  Clustering analysis of enlisted Navy ratings
  (Working Paper No. 101), 1974. 14 p.
- Butterworth, R W; Milch, P R
  Clustering Navy ratings by loss behavior
  Naval Postgraduate School, (NPS-55Bd75062), 1975.
- Dean, S M; Jones, C R; Sovereign, M G
  The Naval ship acquisition process as a system
  Sponsored by the Office of Naval Res. Naval
  Postgraduate School, (NCAR Project 78-1), 1978. 33
  P.
- Esary, J D
  Proposed modifications to the probability of kill model
  established in the JSORs for the ATAAM and AIAAM
  missiles (U)
  Naval Weapons Center, China Lake, Calif., (Reg.
  39052-53), 1978. 30 p.
- Elster, R S; Read, R R; Githens, W H; Musgrave, G L; Creighton, J W
  Design of operational career ladders
  Naval Postgraduate School, (NPS-55Ea73061), June,
  1978. 91 p.
- Esary, J D
  The effect of modeling depth on reliability prediction for systems subject to a phased mission profile
  Naval Postgraduate School, (NPS-557732), 1977. 22 p.
- Esary, J D; Hayne, W J
  Properties of an approximate hazard transform
  Naval Postgraduate School, (NPS-55Ey73091A) 1973. 22
  p.
- Esary, J D: Marshall, A W
  Multivariate distributions with exponential minimums
  Naval Postgraduate School, (NPS-55Ey70091A) 1970.
- Esary, J D: Marshall, A W
  Some classes of distributions closed under the foundation of coherent systems
  Univ. of Wash., (T. R. 59) 1971.
- Esary, J D: Marshall, A W
  Families of components, and systems, exposed to a
  compound Poisson damage process
  Naval Postgraduate School, (NPS-55Ey73071A) 1973. 16
  p.

- Esary, J D: Marshall, A W
  Multivariate geometric distributions generated by a
  cumulative damage process
  Naval Postgraduate School, (NPS-55Ey73041A) 1973. 29
  p.
- Esary, J D: Marshall, A W: Proschan, F
  Shock models and wear processes
  Fla. State Univ., Tallahasee, Fla., (FSU Statistics
  Rep. M 194), 1970.
- Esary, J D: Ziehms, H
  Reliability analysis of phased missions
  Naval Postgraduate School, (NPS-55Ey75021) 1975. 25
  p.
- Forrest, R N
  Erosion and discharge wares (U)
  (Memo.) 1972.
- Forrest, R N
  Nemorandum of ASW studies group on ORIC system March
  1972
  (Memo.) 1972.
- Forrest, R N ORAD application memorandum (U) (Memo.) 1972.
- Forrest, R N Comments on the Sylvania and ITOTS proposals (U) (Memo.) 1973.
- Forrest, R N
  Submarine search models
  Naval Postgraduate School, (NPS-55F074121) 1974. 32
  p.
- Forrest, R N
  Some comments on the effectiveness of an optical ranging and detection system for submarine search
  Naval Postgraduate School, (NPS-55Fo74122) 1974. 13
  p.
- Porrest, R N
  A submarine magnetic anomaly signal model with programs for a Hewlett-Packard 65 calculator
  Naval Postgraduate School, (NPS-55Fo75101) 1975. 37

- Forrest, R N
  Some notes on search, detection and localization
  modeling
  Naval Postgraduate School, (NPS-55Fo75041) 1975. 34
  p.
- Forrest, R N
  A magnetic anomaly signal model with programs for a
  Texas Instruments SR-52 calculator
  Naval Postgraduate School, (NPS-55F076021), 1976. 62
  p.
- Porrest, R N
  A procedure for estimating an object's position based on two or more bearings with a program for a TI-59 calculator
  Naval Postgraduate School, (NPS-55-77-34), 1977. 37
- Forrest, R N
  Magnetic anomaly detection models
  Naval Postgraduate School, (NPS-55-77-19), 1977. 88
  P.
- Forrest, R N
  A procedure for estimating an object's position based on two or more bearings with a program for a TI-39 calculator
  Naval Postgraduate School, (NPS-557774), 1977.
- Forrest, R N
  Spoor identification and submarine localization
  Sponsored by Strategic Systems Project Office. Naval
  Postgraduate School, (NP\$55-78-031), Oct., 1978. 14
  p.
- Forrest, R N
  Magnetic anomaly detection models with a program for a TI-59 calculator
  Naval Postgraduate School, (NPS-5578021), 1978. 52
- Porrest, R N
  An evaluation of a signal processing technique
  Naval Postgraduate School, (NPS-557812PR), 1978. 11
  p.

Forrest, R N A procedure for estimating an object's position based on two or more bearings with a program for a TI-59 calculator Naval Postgraduate School, (NPS55-77-34 (Revised)), Aug., 1978. 42 p.	1
Forrest, R N A note on the use of positive and negative information to update target location estimates Naval Postgraduate School, (NPS-5578018), 1978. 13 p.	
Forrest, R N A discussion of some work done under the NPS - Naval Intelligence Research Project (U) Sponsored by Naval Intelligence Support Center. Naval Postgraduate School, (NPS55-79-008PR), Mar., 1979. 6 p.	
Forrest, R N A submarine spoor detection model Sponsored by Strategic Systems Project Office. Nava: Postgraduate School, (NPS-79-016), Aug., 1979. 27 ps	L
Gaver, D P System service output with application to multiprogramming Naval Postgraduate School, (NPS-55Gv71091A) 1971. 2	1
Gaver, D P Methods for assessing variability with emphasis on simulation data interpretation Naval Postgraduate School, (NPS-55Gv72111A) 1972. 3. P.	3
Gaver, D P Doctors on ships? Naval Postgraduate School, (NPS-55Gv72092A) 1972. 19	5
Gaver, D P Delays at a facility with demand from many distinct sources Naval Postgraduate School (NRS-55GW73081) 1973	4

- Gaver, D P
  Analytical models for supplementing ship manning simulations
  Naval Postgraduate School, (N2S-55Gv73021A) 1973. 24 p.
- Gaver, D P
  DOD budget data analyzed by robust regression techniques
  Naval Postgraduate School, (NPS-55Gv75091) 1975. 29
  p.
- Gaver, D P
  Random record models
  Naval Postgraduate School, (NPS-55Gv75102) 1975. 20
  .P.
- Gaver, D P
  The construction and fitting of some simple probabilistic computer models
  Naval Postgraduate School, (NPS-55Gv75011) 1975. 42
- Gaver, D P
  Statistical methods of probable use for understanding remote sensing data
  Sponsored by Office of Naval Res. Naval Postgraduate School, (NPS55-79-020), Oct., 1979. 19 p.
- Gaver, D P: Acar, M
  Analytical hazard representation for use in reliability,
  mortality, and simulation studies
  Naval Postgraduate School, (NPS55-78-017), Aug.,
  1978. 48 p.
- Gaver, D P: Andrus, A F
  The spare parts allocation problem with imperfect
  information, I
  Naval Postgraduate School, (NPS-55As72041A) 1972. 60
  p.
- Gaver, D P: Humfeld, G
  Multitype multiprogramming: Probability models and
  numerical procedures
  Naval Postgraduate School, (NPS-55Gv75101), 1975. 21
  p.
- Gaver, D P: Jacobs, P A
  Storage problems when demand is "all or nothing"
  Sponsored by the Nat. Sci. Foundation. Naval
  Postgraduate School, (NPS55-79-07), Mar., 1979. 34

- Gaver, D P: Lehoczky, J P
  Gaussian approximations to service problems: A
  communication system example
  Naval Postgraduate School, (NPS-55Gv75061), 1975. 30
  p.
- Gaver, D P: Lehoczky, J P
  Models for work backlogs at computers that time-share
  heterogeneous users
  Naval Postgraduate School, (NPS-557733), 1977. 38 p.
- Gaver, D P: Lehoczky, J P
  Non-stationary infinite server models and their
  relatives
  Sponsored by the Office of Naval Res. and Nat. Sci.
  Foundation. Naval Postgraduate School,
  (NPS-5578026), 1978. 20 p.
- Gaver, D P; Lehoczky, J P
  Channel blocking in a satellite communication system
  model
  Naval Postgraduate School, (NPS55-78-025), Oct.,
  1978. 37 p.
- Gaver, D P; Lehoczky, J P Channels that cooperatively service a data stream and voice messages, I Naval Postgraduate School, (NPS55-79-027), Nov., 1979. 46 p.
- Gaver, D P: Lehoczky, J P: Perlas, M
  Transitory service systems
  Naval Postgraduate School, (NPS-55Gv73051A), 1972.
  32 p.
- Gaver, D P: Lewis, P A W
  First-order autoregressive and gamma sequences
  Sponsored by the Office of Naval Res. and Nat. Sci.
  Foundation. Naval Postgraduate School,
  (NPS-5578016), 1978. 33 p.
- Gaver, D P; Lewis, P A W
  Statistical approaches to managing manpower data bases
  Naval Postgraduate School, (NPS-55GvLw74021) 1974.
  25 p.
- Gaver, D P; Shedler, G S
  Processor utilization in multiprogramming systems via
  diffusion approximations
  Naval Postgraduate School, (NPS-55Gv72051A) 1972. 52
  P.

- Gaver, D P: Shedler, G S
  Approximate models for processor utilization in
  multiprogrammed computer systems
  Naval Postgraduate School, (NPS-55Gv72091A) 1972. 22
  p.
- Gaver, D P; Shedler, G S
  Sampling from the negative binomial distribution using
  Weibull mixture
  (IBM Tech. Rep.) 1973.
- Grinold, R C
  A steady state longitudinal manpower planning model with several classes by manpower
  Naval Postgraduate School, (NPS55-79-025), Aug.,
  1979. 68 p.
- Hartman, J K
  Iterative determination of parameters for an exact
  penalty function
  Naval Postgraduate School, (NPS-55Hh71121A) 1971. 27
  p.
- Hartman, J K
  Some experiments in global optimization
  Naval Postgraduate School, (NPS-55Hh72051A) 1972. 23
  p.
- Hartman, J K
  Conditions under which a penalty function algorithm is
  well defined
  Naval Postgraduate School, (NPS-55Hh73101A) 1973. 8
  p.
- Hartman, J K
  Global solutions to absolute value "linear" programs
  Naval Postgraduate School, (NPS-55Hh73111A) 1973.
- Hartman, J K
  A new method for global optimization
  Naval Postgraduate School, (NPS-55Hh73041A) 1973. 12
  p.
- Hartman, J K
  Construction workload and resource allocation study:
  progress report
  (Working Paper) June, 1974. 8 p.

- Hartman, J K
  Optimal ship routing
  Survey for NROTC Course in Oper. Analysis, July,
  1974. 17 p.
- Hartman, J K
  Heuristics for global optimization of constrained nonlinear programs
  Naval Postgraduate School, (NPS-55Hh74051) 1974. 15
- Hartman, J K
  Epsilon-optimality for a global optimization algorithm
  Naval Postgraduate School, (NPS-55Hh75121) 1975. 11
  p.
- Hartman, J K
  A branch and bound method for nonseparable nonconvex optimization
  Naval Postgraduate School, (NPS-55Hh75102) 1975. 11
- Hartman, J K
  Extension of the grid linearization algorithm for convex optimization to nonconvex nonlinear programs
  Naval Postgraduate School, (NPS-55Hh75071) 1975. 22
  p.
- Hartman, J K
  Preliminary systems specifications for the NTDS computer facilities scheduling system
  May 20, 1977. 29 p.
- Hartman, J K
  Parametric terrain and line of sight modelling in the STAR combat model
  Sponsored by U. S. Army Training and Doctrine
  Command. Naval Postgraduate School, (NPS-55-79-018), Aug., 1979. 81 p.
- Hartman, J K
  A survey of some models for determining munitions stockpile requirements for air to ground weapons Sponsored by the Naval Weapons Center, China Lake, Calif. Naval Postgraduate School, (NPS-55782), 1978.

- Hartman, J K; Howard, G r
  NTDS computer facilities scheduling.
  Naval Postgraduate School, (NPS-55Hh55Hk76111), 1976.
  39 p.
- Hartman, J K; Howard, G T NTDS computer facilities scheduling system: Final report Sponsored by the Fleet Combat Direction Systems Support Activity, San Diego, Calif. Naval Postgraduate School, (NPS-557745), 1977. 153 p.
- Hartman, J K; Lasdon, L S
  A generalized upper bounding algorithm for multicommodity network flow problems
  Case Western Reserve Univ., Cleveland, Ohio. (Tech. Memo 193) 1970. 38 p.
- Hartman, J K; Sheppard, F L
  Thermoeconomic analysis of vapor power systems
  Naval Postgraduate School, (NPS-59Nn75062A) 1975.
  106 p.
- Hartman, J.K; Womer, N.K.
  Auditing cost-effectiveness analyses of technological changes
  Naval Postgraduate School, (NPS-55Hh73121A) 1973.
  102 p.
- Howard, G T
  Sensor accuracy mission performance study
  Mellonics Systems Develop. Div. of Litton Industries,
  1970.
- Howard, G T
  Minimizing expected shortages in a multi-item inventory system
  Naval Postgraduate School, (NPS-55Hk71011A) 1971. 38
- Howard, G T
  Minimizing the number of penetrations in a boundary
  defense problem
  Naval Postgraduate School, (NPS-55Hk72041A) 1972. 29
  p.
- Howard, G T
  An allocation model for attacking defended target
  complexes with imperfect attackers
  Naval Postgraduate School, (NPS-55Hk73081A) 1973. 26
  p.

- Howard, G T
  Analysis of a demand access communication system with priority classes
  Naval Postgraduate School, (NPS-55Hk74121) 1974.
- Howard, G T
  Allocation of resources to maximize flow capacity in a mixed series--parallel network
  Naval Postgraduate School, (NPS-55Hk74122) 1974.
- Howard, G T FACPUB: A system for computerizing faculty publication records
  Naval Postgraduate School, (NPS55-79-019), Sept.,
  1979. 94 p.
- Howard, G T; Balut, S J
  N job, one machine scheduling to minimize the number of late jobs when set-up times are sequence dependent
  Naval Postgraduate School, (NPS-55Hk72021A) 1972. 19
  p.
- Howard, G T: Balut, S J
  Comparison of three rules of thumb to the optimal
  solution in investigation theory—with sample problems
  Naval Postgraduate School, (NPS-55Hk73011A) 1973. 22
  p.
- Howard, G T; Bradley, G H; Schneidewind, N F; Green, T F
  Structure and error detection in computer software
  Naval Postgraduate School, (NPS-55Ss75021) 1975. 20
  p.
- Howard, G T: Bradley, G H: Schneidewind, N F: Green, T F: Montgomery, G
  System test methodology, Vol. II
  Naval Postgraduate School, (NPS-55Ss75072B) 1975.
- Howard, G I: Bradley, G H: Schneidewind, N F: Green, T F: Montgomery, G
  System test methodology, Vol. I
  Naval Postgraduate School, (NPS-55Ss75072A) 1975.
- Howard, G T
  A target selection model
  Naval Postgraduate School, (NPS-557830), 1978. 25 p.

- Howard, G T: Schneidewind, N F: Kirchgaessner, M
  Software error detection models, validation tests and
  program complexity measures
  Naval Postgraduate School, (NPS-52Ss76111), 1976.
  155 p.
- Huber, R K: Low, L J: Taylor, J G
  Some thoughts on developing a theory of combat
  Sponsored by Foundation Res. Program and Scientific
  Affairs Div. of NATO Res. Grants Programme. Naval
  Postgraduate School, (NPS 55-79-014), July, 1979. 54
- Jacobs, P A
  Functionals of a vehicular traffic model with dependent
  motions
  Department of Oper. Res., Stanford Univ., (Technical
  Rep. 74-5), 1974.
- Jacobs, P A
  The motion of a distinguished particle in an infinite particle system
  Department of Oper. Res., Stanford Univ., (Technical Rep.), 1974.
- Jacobs, P A
  The description of a random field by means of its conditional distribution
  Department of Oper. Res., Stanford Univ., (Technical Rep. 74-3), 1974.
- Jacobs, P A
  A cyclic queueing network with dependent exponential service times
  Naval Postgraduate School, (NPS-557740), 1977. 31 p.
- Jacobs, P A
  Heavy traffic results for single server queues with
  dependent (EARMA) service and interarrival times
  Sponsored by the Nat. Sci. Foundation. Navai
  Postgraduate School, (NPS55-79-009), Apr., 1979. 27
  p.
- Jacobs, P A
  A model for the defense of a mine field
  Naval Postgraduate School, (NPS55-79-032), Dec.,
  1979. 16 p.

- Jacobs, P A: Lewis, P A W
  Discrete time series generated by mixtures III:
  Autoregressive processes (DAR(p))
  Naval Postgraduate School, (NPS55-78-022), Sept.,
  1978. 45 p.
- Lehoczky, J P: Gaver, D P
  Approximate models for central server systems with two
  job types
  Naval Postgraduate School, (NPS-557725), 1977. 24 p.
- Lehoczky, J P; Gaver, D P Channels that cooperatively service a data stream and voice messages, II: Diffusion approximations Naval Postgraduate School, (NPS55-79-028), Nov., 1979. 45 p.
- Lewis, P A W
  Recent results in the statistical analysis of univariate point processes
  Naval Postgraduate School, (NPS-55Lw71121A), 1971.
  90 p.
- Lewis, P A W
  Large-scale computer-aided statistical mathematics
  Naval Postgraduate School, (NPS-55Lw72111A), 1972.
  16 p.
- Lewis, P A W
  SASE VI and the statistical analyses of series in events in computer systems
  Naval Postgraduate School, (NPS-55Lw76091), 1976. 21 p.
- Lewis, P A W
  Simple models for positive-valued and discrete-valued time series with ARMA correlation structure
  Naval Postgraduate School, (NPS 55-78-033), Nov.,
  1978. 42 p.
- Lewis, P A W
  The spectrum of intervals for superposed Erland renewal processes
  Naval Postgraduate School, (NPS-55Lw73062A), 1973.
  33 p.
- Lewis, P A W: Gaver, D
  First order autoregressive Gamma sequences and Point
  processes
  Sponsored by the Office of the Naval Res. and Nat.
  Sci. Foundation. Naval Postgraduate School,
  (NPS-5578016), 1978. 33 p.

- Lewis, P A W: Gaver, D P
  Statistical approaches to managing manpower data bases
  Naval Postgraduate School, (NPS-55GvLw74021), 1974.
  25 p.
- Lewis, P A W; Goodman, A S; Robbins, H E
  Simultaneous estimation of large numbers of extreme
  quantiles in simulation experiments
  Naval Postgraduate School, (NPS-55Lw71122A), 1971.
  41 p.
- Lewis, P A W; Iglehart, D
  Regenerative simulation with internal controls
  Sponsored by the Office of Naval Res. Naval
  Postgraduate School, (NPS-557805), 1978, 29 p.
- Lewis, P A W: Iglehart, D L
  Variance reduction for regenerative simulations, I:
  Internal control and stratified sampling for queues.
  Control Analysis Corp., Palo Alto, Calif., Tech. Rep.
  (86-22), 1976. 30 p.
- Lewis, P A W: Jacobs, P A
  A mixed autoregressive-moving average exponential
  sequence and point process (EARMA 1,1)
  Naval Postgraduate School, (NPS-55Lw75101), 1975. 33
  p.
- Lewis, P A W; Jacobs, P A
  Discrete time series generated by mixtures I:
  Correlational and runs properties
  Naval Postgraduate School, (NPS-55-77-1), 1977. 35
  p.
- Lewis, P A W; Jacobs, P A
  Discrete time series generated by mixtures III:
  Autoregressive processes (DAR(p))
  Sponsored by the Office of Naval Res. Naval
  Postgraduate School, (NPS-5578022), 1978. 29 p.
- Lewis, P A W: Lawrance, A J
  A moving average exponential point process (EMA1)
  Naval Postgraduate School, (NPS-55Lw75061), 1975. 26
  p.
- Lewis, P A W: Lawrance, A J
  An exponential autoregressive-moving average process EARMA(p,q): Definition and correlational properties Sponsored by the Office of Naval Res. Naval Postgraduate School, (NPS-557801), 1978. 35 p.

- Lewis, P A W: Lawrence, A J
  Properties of the bivariate delayed Poisson process
  Naval Postgraduate School, (NPS-55Lw74071), 1974. 25
  p.
- Lewis, P A W; Learmonth, G P
  Naval Postgraduate School random number generator
  package LL random
  Naval Postgraduate School, (NPS-55Lw73061A), 1973.
  51 p.
- Lewis, P A W: Learmonth, G P
  Statistical tests of some widely used and recently proposed uniform random number generators
  Naval Postgraduate School, (NPS-55Lw73111A), 1973. 9
  p.
- Lewis, P A W: Robinson, D W
  Testing for a monotone trend in a modulated renewal process
  Naval Postgraduate School, (NPS-55Lw73121), 1973. 27
  P.
- Lewis, P A W; Robinson, D W
  Generating Gamma and Cauchy random variables: an
  extension to the Naval Postgraduate School random number
  package
  Naval Postgraduate School, (NPS-72Ro75041), 1975. 58
  p.
- Lewis, P A W: Robinson, D W
  Empirical sampling study of goodness of fit statistic
  for density function estimation
  Naval Postgraduate School, (NPS-55Lw75031), 1975. 26
  p.
- Lewis, P A W; Shedler, G S
  Statistical analysis of non-stationary series of events
  in a data base system.
  Naval Postgraduate School, (NPS-55Lw76092), 1976. 51
  p.
- Lewis, P A W: Shedler, G S Analysis and modelling of point processes in computer systems Naval Postgraduate School, (NPS-557738), 1977. 41 p.

- Lewis, P A W; Shedler, G S
  Simulation of nonhomogeneous Poisson processes by thinning
  Sponsored by the Office of Naval Res. Naval Postgraduate School, (NPS-5578014), 1978. 23 p.
- Lewis, P A W: Shedler, G S
  Simulation methods for Poisson processes in
  nonstationary systems
  Sponsored by the Office of Naval Res. Naval
  Postgraduate School, (NPS-5578019), 1978. 25 p.
- Marshall, K T
  An analysis of bolter-hole spacing in aircraft carrier landings
  Naval Postgraduate School, (NPS-5578013), 1978. 50
  p.
- Marshall, K T
  A comparsion of two personnel prediction models
  Naval Postgraduate School, (NPS-55Mt71011A), 1971.
  43 p.
- Marshall, K T
  A manpower and personnel research data base feasibility study
  Naval Postgraduate School, (NPS-55Mt73121), 1973. 33
  p.
- Marshall, K T
  Manpower and personnel data bases in the Navy and Marine Corps
  Naval Postgraduate School, (NPS-55Mt73021A), 1973.
  36 p.
- Marshall, K T
  The determination of Navy graduate school quotas
  Naval Postgraduate School, (NPS-55Mt75011), 1975. 35
  p.
- Marshall, K T
  Forecasting the numbers and types of enlisted personnel in the United States Marine Corps: An interactive cohort model
  Naval Postgraduate School, (NPS-55-77-24), 1977. 31
  p.

- Marshall, K T
  Department of Operations Research technical report list
  1966-1976
  Naval Postgraduate School, (NPS-557735), 1977. 16 p.
- Marshall, K T
  An interactive model to compute the officer manpower plan for the United States Marine Corps
  Naval Postgraduate School, (NPS-557737), 1977. 42 p.
- Marshall, K T
  A classroom demonstration of the length-bias paradox in renewal theory: First words on printed lines are longer than average
  Naval Postgraduate School, (NPS-557712), 1977. 11 p.
- Marshall, K T
  Efficient computation and long range optimization
  applications using a two-characteristic Markov-type
  manpower flow model
  Naval Postgraduate School, (NPS-557723), 1977. 31 p.
- Marshall, K T Recruit-first term reenlistment trade-off (Internal OP-01 Rep.), 1979.
- Marshall, K T: Butterworth, R W
  A survey of renewal theory with emphasis on approximations, bounds, and applications
  Naval Postgraduate School, (NPS-55Bd74051), 1974. 59
  p.
- Marshall, K T; Butterworth, R W
  Survey of numerical methods for applications of renewal processes
  Naval Postgraduate School.
- Marshall, K T; Criste, D M
  A survey of selected officer retention and grade-structure studies
  Naval Postgraduate School, (NPS-55Mt72071A), 1972.
  57 p.
- Marshall, K T; Grinold, R C
  Manpower planning models I: Basic concepts
  Naval Postgraduate School, (NPS-55Mt74122), 1974. 27

- Marshall, K T: Grinold, R C
  Manpower planning models III: Longitudinal models
  Naval Postgraduate School, (NPS-55Mt75081), 1975. 85
  p.
- Marshall, K T; Grinold, R C
  Manpower planning models V: Optimization models
  Naval Postgraduate School, (NPS-55Mt75101), 1975. 66
  p.
- Marshall, K T; Grinold, R C
  Manpower planning models IV: Synthesis of
  cross-sectional and longitudinal models
  Naval Postgraduate School, (NFS-55Mt75111), 1975. 43
  p.
- Marshall, K T: Grinold, R C
  Manpower planning models II: Cross sectional models
  Naval Postgraduate School, (NPS-55Mt75021), 1975.
  102 p.
- Marshall, K T; Grinold, R C; Oliver, R M
  Longitudinal manpower planning models
  Oper. Res. Center, Univ. of Calif., Berkeley, Calif.,
  (ORC 73-12), 1973. 30 p.
- Marshall, K T; Hayne, W J
  Two-characteristic Markov-type manpower flow models
  Naval Postgraduate School, (NPS-55Mt74071), 1974. 44
  P.
- Marshall, K T; Oliver, R M
  Estimating errors in student enrollment forecasting
  Naval Postgraduate School, (NPS55-79-01), Jan., 1979.
  26 p.
- Marshall, K T; Oliver, R M; Suslow, S S
  Undergraduate enrollment and attendance patterns
  Office of the Chancellor, Univ. of Calif., Berkeley,
  Calif., Administrative Studies Project in Higher
  Education. (Rep. No. 4), 1970. 51 p.
- Marshall, K T; Richards, F R
  Analysis of deficits in discrete time resource
  allocation problems with correlated supplies and demands
  Naval Postgraduate School, (NPS-55MtRh76051), 1976.
  18 p.

- Marshall, K T; Wolff, R W
  Customer average and time average queue lengths and waiting times
  Oper. Res. Center, Univ. of Calif., Berkeley, Calif., (ORC 70-16), 1970.
- Milch, P R
  A shutdown queue with two servers and general service times
  Naval Postgraduate School, (NPS-55Mh72041A), 1972.
  13 p.
- Milch, P R
  A model for the prediction of advancements in the Navy
  Enlisted Force.
  Naval Postgraduate School, (NPS-55Mh76061), 1976.
  141 p.
- Milch, P R
  Estimation of parametric length of service distributions of advances of the Navy Enlisted Force.
  Naval Postgraduate School, (NPS-55Mh76121), 1976.
  141 p.
- Milch, P R
  The establishment of a new method of estimating the number of advancements in the Navy enlisted force Naval Postgraduate School, (NPS-55786), 1978. 164 p.
- Milch, P R; Andrus, A F; Brown, D
  Alternative measures of effectiveness and methods of analysis for phase II antitank missile test (ATMT)
  BMD Scientific Support Lab., Aug., 1974. 48 p.
- Milch, P R; Butterworth, R W
  Clustering analysis of the enlisted Navy ratings
  Navy Personnel Res. and Develop. Center, (NPRDC
  74-101) 1974. 15 p.
- Milch, P R: Butterworth, R W Clustering Navy ratings by loss behavior Naval Postgraduate School, (NPS-55Bd75062), 1975. 32 p.
- Neil, D E
  Design parameters and color CRT display design
  Naval Postgraduate School, (NPS55-79-05), Feb., 1979.
  41 p.

- Neil, D E; Johns, T R
  Inter-examiner reliability in the determination of
  lateral visual field
  U. N. C. Highway Safety Res. Center, Chapel Hill, N.
  C., (Tech. Rep.), 1972.
- Neil, D E: Johns, T R
  An investigation of the relationship between induced fatigue and heartrate
  U. N. C. Highway Safety Res. Center, Chapel Hill, N. C., (Tech. Rep.), 1973.
- Neil, D E: Pearson, R G; Barrett, R F Sonar display design parameters and a conceptual model of the observer's role in target detection ONR, Washington, D. C., (Tech. Rep.), 1970.
- Parry, S H Land combat model-find report System Res. Group, Ohio State Univ., 1970.
- Parry, S H
  Studies of mobility, agility and survivability in the land combat environment
  Naval Postgraduate School, (NPS-55Py75091), 1975.
  148 p.
- Parry, S H; Kelleher, E P
  Tactical parameters and input requirements for the ground component of the STAR combat model
  Sponsored by U. S. Army Training and Doctrine
  Command. Naval Postgraduate School, (NPS55-79-023),
  Oct., 1979. 95 p.
- Pilnick, S E
  An example of phased mission reliability analysis for a hypothetical naval weapons system
  Naval Postgraduate School, (NPS-557728), 1977. 36 p.
- Poock, G K
  Underwater display visibility as influenced by trubidity, display background color, and the color and intensity of illumination
  Naval Postgraduate School, (NPS-55Pk72071A), 1972.
  28 p.
- Poock, G K
  Underwater display visibility as influenced by turbidity, viewing distance, and color of illumination Naval Postgraduate School, (NPS-55Pk72051A), 1972.

  15 p.

- Poock, G K
  Human factors and safety problems on Navy oil skimmers
  Naval Postgraduate School, (NPS-55Pk75011), 1975. 13
  p.
- Poock, G K
  Factors involved in the variability of monthly major aircraft accident rates
  Naval Postgraduate School, (NPS-55Pk76071), 1976. 11
  P.
- Poock, G K
  Trends in major aircraft accident rates
  Naval Postgraduate School, (NPS-55Pk76061), 1976. 23
  P.
- Poock, G K: Ruckner, E A: Kritz, A C Underwater display visibility as influenced by turbidity Nav. Electronics Lab. Center, (IN2386), 1973.
- Poock, G K; Sparks, P W
  The Poock-Sparks technique of motion picture Kirlian photography
  (Tech. Rept. 1), 1973.
- Raike, W M
  Performance-constrained deterministic and probabilistic multiperiod inventory problems: Part I
  Oper. Res. Group, Monterey, Calif., (Working Paper), 1973.
- Raike, W M; Buckingham, J R; Kelleher, M D An optimization study of a low thermal potential power system Naval Postgraduate School, (NPS-69Kk76091), 1976. 108 p.
- Raike, W M; Charles, A; Stutz, J D
  Extensions of some results of Gale and Nikaido
  concerning global unicity of solutions to nonlinear
  inequalities
  Oper. Res. Group, Monterey, Calif., (Working Paper),
  1973.
- Raike, W M; Charnes, A; Stutz, J D
  V-positivity, poverses and an economic global unicity theorem of Gale and Nikaido
  Center for Cybernetic Studies, Univ. of Texas, Austin, Tex., (Res. Rep. CS-182), 1974. 8 p.

- Rasmuson, D M: Marshall, N H; Burdick, G R
  User's guide for the reliability analysis system (RAS)
  EG&G, Idaho, Inc., (Category UC-79p, LMFBR-Safety,
  TID-4500-R65) (TREE-1168), Sept., 1977.
- Read, R R
  Fire support records project
  Naval Postgraduate School (NPS-55Re70111B) 1970. 23
  p.
- Read, R R
  An analysis of HF bearing data
  Naval Postgraduate School, (NPS-55Re75101), 1975.
- Read, R R
  Study of the prediction of manpower change behavior
  using regression methods
  Naval Postgraduate School, (NPS-557726), 1977. 62 p.
- Read, R R
  Asymptotic efficiency and some quasi method of moments estimators
  Naval Postgraduate School, (NPS-55777), 1977. 69 p.
- Read, R R
  Methodology for efficiency and alteration of the likelihood system
  Naval Postgraduate School, (NPS-55-77-9), 1977.
- Read, R R
  Data analysis of the teaching award ballots
  Naval Postgraduate School, (NPS55-79-013), July,
  1979. 57 p.
- Read, R R; Elster, R S; et al Statistical analysis of personnel data using factor scoring cluster analysis and multidimensional scaling Naval Postgraduate School, (NPS-55Re73061), 1973.
- Read, R R; Elster, R S; Githens, W H
  Design of operational career ladders
  Naval Postgraduate School, (NPS-55Ea73061), 1973. 91
  p.
- Read, R R; Zweig, H J
  On the quantification of teacher performance using student opinion
  Naval Postgraduate School, (NPS-55ReZw72031A) 1972.
  57 p.

- Richards, F R
  A stochastic model of a repairable item inventory system
  Naval Postgraduate School, (NPS-55Rh72121A), 1972.
  32 p.
- Richards, F R
  Validations tests for ships supply support study
  Naval Postgraduate School, (NPS-55Rh72111A), 1972.
  23 p.
- Richards, F R
  A study of independence between supply ehcelons
  Naval Postgraduate School, (NPS-55Rh73021A), 1973.
  34 p.
- Richards, F R
  Computer software: Testing, reliability models, and
  quality assurance
  Naval Postgraduate School, (NPS-55Rh74071A), 1974.
  80 p.
- Richards, F R
  A user's guide to the OA 3660 APL workspace
  Naval Postgraduate School, (NPS-5578028), 1978. 113
  p.
- Richards, F R: Atkinson, L R
  Analytical models for SERVMART inventory control
  Naval Postgraduate School, (NPS-55Rh73061A), 1973.
  43 p.
- Richards, P R: Barr, D R
  Utility induced subjective probability
  Naval Postgraduate School, (NPS-55Bn75011), 1975. 32
  p.
- Richards, F R; Barr, D R
  Utility assessment methodology, preliminary development
  phase report
  Systems Exploration, Inc., (Technical Rep.), Dec.,
  1978.
- Richards, F R: Barr, D R

  MK 82 bomb ejection sensitivity test report.

  Sponsored by Naval Electronics Systems Eng. Center.

  Naval Postgraduate School, (NPS55-79-02), Feb., 1979.

  20 p.

- Richards, F R: Marshall, K T
  Analysis of deficits in discrete time resource
  allocation problems with correlated supplies and demands
  Naval Postgraduate School, (NPS-55MtRh76051), 1976.
  18 p.
- Richards, F R; Thomas, M U
  On choosing a family of probability distributions
  Naval Postgraduate School, (NPS-55Rh74021), 1974. 22
  P.
- Richards, F R; Woodall, S R
  User's guide to the time series editor
  Naval Postgraduate School, (NPS-5578035), 1978. 32
  P.
- Richards, F R; Woodall, S R
  An interactive software package for time series analysis
  Naval Postgraduate School, (NPS-5578034), 1978. 171
  p.
- Shubert, B O
  Sequential optimization of multimodal discrete function with bounded rate of change
  Naval Postgraduate School, (NPS-55Sy70101A), 1970.
- Shubert, B O
  Games of prediction of periodic sequences
  Naval Postgraduate School, (NPS-55Sy71081A), 1971.
  40 p.
- Shubert, B O
  Evaluation of certain probabilities associated with a class of Markov chains
  Naval Postgraduate School, (NPS-55Sy73111A), 1973.
  34 p.
- Shubert, B O
  On the Omega-value of a matrix
  Naval Postgraduate School, (NPS-55Sy74021), 1974. 24
  P.
- Shubert, B O
  Some remarks on the finite-memory K-hypotheses problems
  Naval Postgraduate School, (NPS-55Sy74101), 1974. 23
  p.

- Shubert, B O
  Modeling a random search
  Naval Postgraduate School, (NPS-55Sy75071), 1975. 25
  p.
- Shubert, B O; Brown, G G
  On random binary trees
  Naval Postgraduate School, (NPS-55Bw76061), 1976. 45
  p.
- Shubert, B O; Washburn, A R
  The Omega-value of a two-by-two matrix differential game
  Naval Postgraduate School, (NPS-SyWs73101A), 1973.
  26 p.
- Shubert, B O; Washburn, A R
  Equilibrium equations and a computation method for
  matrix differential games (MDG)
  Naval Postgraduate School, (NPS-55Ws74061), 1974. 25
  p.
- Shudde, R H
  LPI--an interactive linear programming package
  Naval Postgraduate School, (NPS-55Su74101), 1974. 42
  p.
- Shudde, R H
  Surface duct propagation loss HP-97 plot version
  NAVTACSUPPACT Fleet Mission Program Library, (Doc.
  U10015), 1976.
- Shudde, R H
  Nonsymmetric ballastic range, height, time-of-flight and optimal flight path angle computations with programs for a Hewlett-Packard 65 calculator
  Naval Postgraduate School, (NPS-55Su76031), 1976. 17 p.
- Shudde, R H
  FBM Effectiveness project results of 2 research
  quarters
  Naval Postgraduate School letter rep., (NC4(55Su)/pc,
  3900. Ser: S120), 1976.
- Shudde, R H
  Bearing, speed and course given range and Doppler data from two sonobuoys
  NAVTACSUPPACT Fleet Mission Program Library, (Doc. U10020), 1976.

- Shudde, R H
  Speed and course given range-only data from two
  sonobuoys of two or more times
  NAVTACSUPPACT Fleet Mission Program Library, (Doc.
  U10021), 1976.
- Shudde, R H
  HYLOP Hyperbolic lines-of-position with two sonobuoys
  NAVTACSUPPACT Fleet Mission Program Library, (Doc.
  C10019), 1976.
- Shudde, R H
  DACTIVE Least squares tracking with time, bearing, and range
  NAVTACSUPPACT Fleet Mission Program Library, (Doc. U10017), 1976.
- Shudde, R H
  DIFAR Bearings only tracking with least squares
  NAVTACSUPPACT Fleet Mission Program Library, (Doc. U10016), 1976.
- Shudde, R H
  HYFIX Hyperbolic fixing with three sonobuoys
  NAVTACSUPPACT Fleet Mission Program Library, (Doc.
  C10018), 1976.
- Shudde, R H
  Estimation of a contact's course, speed and position based on bearings-only information from two moving sensors with a program for an HP-67/97 calculator Naval Postgraduate School, (NPS-557743), 1977. 16 p.
- Shudde, R H
  On-station update of oceanographic information with programs for the HP-67 calculator
  Naval Postgraduate School, (NPS-557741), 1977. 13 p.
- Shudde, R H
  Tactical analysis on the personal programmable
  calculator--six algorithms
  Naval Postgraduate School, (NPS-55-77-31), 1977. 89
  p.
- Shudde, R H
  An analysis of the Lloyd mirror phenomena under constant velocity gradient conditions with programs for the HP-67/97 calculator
  Naval Postgraduate School, (NPS-557736), 1977. 120 p.

- Shudde, R H
  Tactical analysis on the personal programmable calculator six algorithms (rev. ed.)
  Naval Postgraduate School, (NPS-557731), 1978.
- Shudde, R H
  An AN/SSQ-50/50A and AN/SSQ-62 environmental range prediction model for the Hewlett-Packard HP-67/97 programmable calculator
  Sponsored by Office of Naval Research. Naval Postgraduate School, (NPS55-78-027), Oct., 1978.
- Shudde, R H
  Tracking and environmental algorithms for the
  Hewlett-Packard HP-67 calculator
  Naval Postgraduate School, (NPS-55789), 1978. 59 p.
- Shudde, R H
  Naval applications: Ten algorithms for the
  Hewlett-Packard HP-67 and HP-97 calculators
  Naval Postgraduate School, (NPS55-79-04), Feb., 1979.
  169 p.
- Shudde, R H
  Naval applications: Three algorithms for the
  Hewlett-Packard HP-67 and HP-97 calculators (U)
  Naval Postgraduate School, (NPS55-79-011), May, 1979.
- Shudde, R H; Barr, D R
  An analysis of earthquake frequency data
  Naval Postgraduate School, (NPS-55Su76121), 1976. 11
  p.
- Shudde, R H; Zeleny, W B
  The MIRV sequencing problem an analytical approach
  (NPS-55Su/61Z10061B), 1970.
- Sovereign, M G; Jones, C R
  Escalation provisions for Navy contracts, issues and choices
  Naval Postgraduate School, (NPS-55Zo75051), 1975. 59
  p.
- Taylor, J G
  Application of differential games to problems of military conflict: Tactical allocation problems Part

  I
  Naval Postgraduate School, (NPS-55Tw70062A), 1970.
  197 p.

- Taylor, J G
  Application of differential games to problems of naval
  warfare: Surveillance evasion Part I
  Naval Postgraduate School, (NPS-55Tw70061A), 1970.
  126 p.
- Taylor, J G
  Application of differential games to problems of military conflict: Tactical allocation problems Part II

  Naval Postgraduate School, (NPS-55Tw72111A), 1972.
  77 p.
- Taylor, J G
  Appendices C and D of Application of differential games to problems of military conflict: Tactical allocation problems Part II.

  Naval Postgraduate School, (NPS-55Tw74112), 1974. 27 p. and 71 p.
- Taylor, J G
  Application of differential games to problems of military conflict: Tactical allocation problems Part III. Final report for period Sept., 1973 May, 1974
  Naval Postgraduate School, (NPS-55Tw74051), 1974. v. p.
- Taylor, J G
  Survey on the optimal control of Lanchester-type
  attribtion processes. Partial report for period Sept.
  1973-Dec. 1973
  Naval Postgraduate School, (NPS-55Tw74031), 1974. 36
  p.
- Taylor, J G
  Optimal fire-support strategies
  Naval Postgraduate School, (NPS-55Tw76021), 1976.
  146 p.
- Taylor, J G
  Differential-game examination of optimal time-sequential fire-support strategies
  Naval Postgraduate School, (NPS-55Tw76091), 1976. 53
  p.
- Taylor, J G
  Error bounds for the Liouville-Green approximation to initial-value problems
  Naval Postgraduate School, (NPS55-77-29), 1977.

- Taylor, J G
  Fire distribution in Lanchester inertial combat, I:
  "Square-law" attrition of target types
  Naval Postgraduate School, (NPS-557711), 1977. 50 p.
- Taylor, J G
  On Liouville's normal form for Lanchester-type equations of modern warfare with variable coefficients
  Sponsored by the Office of Naval Res. and Foundation Res. Program. Naval Postgraduate School, (NPS-5578024), 1978. 28 p.
- Taylor, J G: Brown, G G
  A mathematical theory for variable-coefficient
  Lanchester-type equations of "modern warfare"
  Naval Postgraduate School, (NPS-55Tw74111), 1974. 44
  p.
- Taylor, J G: Brown, G G
  An examination of the effects of the criterion
  functional on optimal fire-support policies.
  Naval Postgraduate School, (NPS-55Tw55Bn76092), 1976.
  48 p.
- Taylor, J G; Brown, G G A short table of Lanchester-Clifford-Schlafli functions Sponsored by the U. S. Army Res. Office and Office of Naval Res. Naval Postgraduate School, (NPS-557742), 1977. 63 p.
- Taylor, J G: Brown, G G
  A table of Lanchester-Clifford-Schlafli functions
  Sponsored by the U. S. Army Res. Office and Office of
  Naval Res. Naval Postgraduate School, (NPS-557739),
  1977. 90 p.
- Taylor, J G: Comstock, C
   Force-annihilation conditions for variable-coefficient
   Lanchester-type equations of modern warfare, I:
   Mathematical theory
   Naval Postgraduate School, (NPS-55Tw76081), 1976. 35
   p.
- Taylor, J G: Brown, G G
  Further canonical methods in the selection of
  variable-coefficient Lanchester-type equations of modern
  warfare
  Naval Postgraduate School, (NPS-557727), 1977.

# DEPARTMENT OF OPERATIONS RESEARCH TECHNICAL REPORTS (cont'd)

- Thomas, M U: Barr, D R
  Statistical aspects of lumpability hypotheses for Markov chains
  Naval Postgraduate School, (NPS-55Bn55To72131A),
  1973. 10 p.
- Thomas, M U: Brill, E A
  Management of a community hospital blood bank
  Naval Postgraduate School, (NPS-55Zg72122A), 1972.
  19 p.
- Thomas, M U: Brill, E A
  Some feasibility considerations for selecting and
  maintaining medical diagnostic systems
  Naval Postgraduate School, (NPS-55To73122A), 1973.
  22 p.
- Thomas, M U; Brill, E A
  Managing a community hospital blood bank with a freezer
  system
  Naval Postgraduate School, (NPS-55Zg55To74011), 1974.
  28 p.
- Thomas, M U; Hartman, J K; Richards, F R
  Construction workload and resource allocation study:
  Progress report
  Naval Postgraduate School, (WR-4-2189), 1974. 8 p.
- Thomas, M U; Parry, S H
  An evaluation of the manufacturing operations at the Rock Island arsenal
  Battelle Columbus Labs., (Task Order 76-0069), 1976.
- Thomas, M U: Rantschler, R D
  A mathematical formulation for selecting
  holding-tank-processor requirements for shipboard sewage
  treatment
  Naval Postgraduate School, (NPS-55To72071A), 1972.
  26 p.
- Thomas, M U; Richards, F R
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  38 p.
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